

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Appellant(s) : Guillermo J. TEARNEY et al.  
Serial No. : 09/709,162  
Filed : November 10, 2000  
For : APPARATUS AND METHOD FOR PROVIDING  
INFORMATION FOR AT LEAST ONE STRUCTURE  
Examiner : James M. Kish  
Art Unit : 3737  
Confirmation No.: 3219

MAIL STOP APPEAL BRIEF - PATENTS  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**REPLY BRIEF**

Sir:

Appellants hereby submit this Reply Brief in response to the Examiner's Answer dated November 29, 2011. Appellants respectfully request consideration of this appeal by the Board of Patent Appeals and Interferences (hereafter the "Board") based on this Reply Brief and the previously-submitted Appeal Brief dated November 14, 2011.

In accordance with 37 C.F.R. § 41.41, this reply brief is being submitted in support of the appeal of the final rejection of pending claims 1-27, in support of the previously-submitted Appeal Brief, and in response to the Examiner's Answer. For at

least the reasons set forth below and those set forth in the previously-submitted Appeal Brief, the final rejection of pending claims 1-27 should be reversed.

I. REJECTIONS OVER KITTRELL PATENT IN VIEW OF OLINGER PATENT, WEBB PUBLICATION AND/OR BAKER PATENT SHOULD BE OVERTURNED

A. Independent Claims 68, 89, 113, 125 and 131 and Dependent Claims

In the Answer, the Examiner contends that the recitation of “an image-forming lens arrangement” that forms an image of the anatomical structure “lends for a system, or arrangement, of lenses, rather than a single lens for forming the image.” (Answer, p. 8, Ins. 12-14). The Examiner also alleges that U.S. Patent No. 5,318,024 issued to Kittrell et al. (the “Kittrell Patent”) “discloses a device for forming an image ... and this device utilizes lenses.” (*Id.*, p. 8, Ins. 8-9). Thus, the Examiner interprets these independent claims 68, 89, 113, 125 and 131 of the present application as “utilizing lenses with the ultimate purpose of forming an image.” (See *Id.*, p. 8, Ins 10-11).

First, Appellants respectfully assert that the “system, or arrangement of” lenses in the Kittrell Patent does not, itself, is capable of forming any image whatsoever. Indeed, the device described in the Kittrell Patent that forms images is a computer 80. (See Kittrell Patent, col. 19, Ins. 54-57 and col. 24, Ins. 37-55; and Figs. 21 and 24). Thus, the computer 80 - not any arrangement or system of lenses in the Kittrell Patent – is what forms images based on the radiation (**and not images**) provided by the lenses.

Second, the Examiner interpretation of the recitation of the “image-forming lens arrangement” as provided in claims 68, 89, 113, 125 and 131 is inappropriate. Indeed, each of such independent claims 68, 89, 113, 125 and 131 recites “**an optical**

**waveguide configured to transmit and receive the information from the structure on a macroscopic scale” and “at least one further arrangement which is structured to obtain the information based on a radiation obtained from the structure, wherein the information is at least one of a two-dimensional image or a three dimensional image.”**

Thus, there is another arrangement obtaining information based on a **radiation obtained from the structure**, i.e., a further arrangement, and such information a two-dimensional image and/or a three dimensional image. Indeed, the Examiner's attempt to insert another non-lens device as producing an image (i.e., the computer 80 of the Kittrell Patent) is inappropriate at least because the only device which can arguably be equated to the recited further arrangement of independent claims 68, 89, 113, 125 and 131 is the computer 80 of the Kittrell Patent. Certainly using the computer as being part of the image forming lens arrangement and the further arrangement of such independent claims is wholly inappropriate.

Third, independent claims 68, 113, 125 and 131 recite that the image forming lens arrangement is configured to **provide a plurality of electro-magnetic radiations**, which are provided by at least **one of a broadband source or a wavelength tuned source**. Certainly, the computer 80 of the Kittrell Patent does not provide any electro-magnetic radiations which are also provided by **the broadband source and/or the wavelength tuned source**, as recited in independent claims 68, 113, 125 and 131.

Fourth, the Examiner points to the Abstract of the Kittrell Patent as describing a “laser endoscope ... for generating a spectrally resolved spatial image of

tissue.” However, the Abstract of the Kittrell Patent is clear that it is the “fiber optics positioned within an optically shielded endoscope [which] are used to deliver laser radiation to tissue to be imaged ... [and the r]adiation returning through the fiber optics from the tissue is spectrally resolved and used to generate an image of tissue that can assist in diagnosis and treatment. “ Clearly, even based on a very short description provided in the Abstract of the Kittrell Patent, it is abundantly clear that a device thereof forms images that receives radiation from lens arrangement or system, and not by the lens system/arrangement of the Kittrell Patent itself.

Fifth, the Examiner alleges that since the lens 41 of the Kittrell Patent sends radiation to the prism 224, such lens can be equated to the image-forming lens arrangement which provides radiation to the dispersive arrangement which then forwards the dispersed radiation to the structure, as recited in independent claims 68, 89, 113, 125 and 131. (See Answer, p. 9). However, the lens 41 of the Kittrell Patent does not form any image when it transmits the radiation to the sample through the prism 224. Indeed, the radiation being transmitted to the sample through the prism 224 in the Kittrell Patent provides absolutely no images whatsoever.

The Olinger Patent, the Webb Publication and/or the Baker Patent do not cure such deficiencies of the Kittrell Patent, and the Examiner does not contend that they do.

Accordingly, Appellants respectfully submit that the Kittrell Patent, even if combined with the Olinger Patent, the Webb Publication and/or the Baker Patent, does not render obvious the subject matter recited in independent claims 68, 89, 113, 125 and 131. The claims which depend from independent claims 68, 89, 113, 125 and 131

are also not taught, suggested or disclosed by the Kittrell Patent, taken alone or in combination with the Olinger Patent, the Webb Publication and/or the Baker Patent for at least the same reasons.

Therefore, for at least the reasons described herein above and those provided in the Appellants' Appeal Brief, Appellants respectfully assert that the Kittrell Patent does not render the subject matter recited in amended independent claim 68, 89, 113, 125 and 131 anticipated under 35 U.S.C. § 102(b). The claims which depend from such independent claims are also not taught, suggested or disclosed by the Kittrell Patent, taken alone or in combination with the Olinger Patent, the Webb Publication and/or the Baker Patent pursuant to U.S.C. §§ 102(b) and 103(a), as applicable, for at least the same reasons.

B. Dependent Claim 147

Regarding claim 147, this claim depend from claim 74 which depends from independent claim 68, and also recites that **"the optical fiber has an end portion that is provided at a position of an image plane of the at least one portion which is established by the lens."** In the Answer, the for the first time, the Examiner alleges that because the lens 41 is shown as converging in Fig. 21 of the Kittrell Patent, such illustration would purported make it obvious to those having ordinary skill in the art "that the light is brought to a convergent point at an image plane of the lens in order to direct it into the optical fiber." (Answer, p. 12, Ins. 10-12).

However, nowhere in the Kittrell Patent, and specifically in Fig. 21 thereof is there any illustration, teaching, suggestion or disclosure that the end 40 of the fiber 20

is provided at a position of the image plane of the lens. Indeed, merely because the lens 41 of the Kittrell Patent is converging, that certainly does not mean that the convergence is provided at the position at the image plane where the fiber end 40 is provided. Indeed, the fiber end 40 shown in Fig. 21 of the Kittrell Patent can reside at any other position which would obtain radiation from the lens 41. Such position is not shown, described or otherwise indicated as being at the position of the image plane of any portion of the lens. Clearly, the converge of the lens 41 can be a completely different position and/or plane from a position on the image plane of any portion of the lens, as recited in claim 147.

## II. CONCLUSION

For at least the reasons indicated above and those provided in Appellants' Appeal Brief, Appellants respectfully submit that the invention recited in the presently rejected claims of the present application, as discussed above, is new, non-obvious and useful. Appellants request that the Board of Patent Appeals and Interferences reverse of the Examiner's final rejection of the claims, and direct allowance of the rejected claims.

Respectfully submitted,

Dated: January 30, 2012

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